

SOCIETY OF DEPRECLATION PROFESSIONALS  
Annual Meeting

FORECASTING

FATINA K. FRANKLIN  
FEDERAL COMMUNICATIONS COMMISSION  
SEPTEMBER 22, 1997

## LIFE SPAN OR FORECAST METHOD

1. Large Individual Identifiable Units
2. Forecast Of An Individual Retirement Date Or Overall Life Span
3. Life Span - Yrs. From Avg. Date Of Placing To Avg. Date Of Retirement
4. Future Additions Are Integral Part Of Initial Installation

## ANALOG ELECTRONIC SWITCHING

(INDIVIDUAL RETIREMENT DATE)

Location <u>Name</u>	<u>Type</u>	Equipped <u>Lines</u>	Year <u>Placed</u>	Book <u>Investment</u>	Est. Date Of <u>Retirement</u>
Springfield	1A	50,000	1979	15,000,000	1999
Paris	2B	10,000	1980	2,500,000	1998
Lexington	RSS	<u>1,000</u>	<u>1984</u>	<u>500,000</u>	<u>1997</u>
Total or Composite		61,000	1979.3	18,000,000	1998.8

## DIGITAL ELECTRONIC SWITCHING

(OVERALL LIFE SPAN)

Location <u>Name</u>	<u>Type</u>	Equipped <u>Lines</u>	Year <u>Placed</u>	Book <u>Investment</u>
Jackson	5ESS	56,000	1985	20,000,000
Gainesville	DMS-100	9,000	1987	5,000,000
Lexington	RSS	<u>200</u>	<u>1990</u>	<u>300,000</u>
Total or Composite		65,200	1985.5	25,300,000

Est. Avg. Retirement Year = 1985.5 + 20 Year Span = 2005.5

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# PRODUCT LIFE CYCLE

## Company A Buried Metallic Cable

<u>Year</u>	<u>1994 Study Forecast</u>	<u>1997 Study Actuals/Forecast</u>	<u>Beg of Year Investment</u>
1994	214.9	229.8 (A)	
1995	140.5	153.5 (A)	
1996	<u>86.5</u>	<u>62.1 (A)</u>	
Total	441.9	445.4 (A)	
1997	43.4	33.2 (F)	221.3
1998	41.0	132.8 (F)	188.1
1999	<u>44.6</u>	<u>55.3 (F)</u>	<u>55.3</u>
Total	129.0	221.3 (F)	464.7

Average Remaining Life (As of 1/1/97) =  $464.7 / 221.3 - 0.5 = 1.6$  Years

## Company B Aerial Metallic Cable

<u>Year</u>	<u>1991 Study Forecast</u>	<u>1994 Study Forecast</u>	<u>1997 Study Actuals</u>
1994	7,418	5,887	3,532
1995	10,318	7,532	3,818
1996	<u>12,697</u>	<u>9,037</u>	<u>3,490</u>
Total	30,433	22,456	10,840

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Chart 3

# Substitution Analysis 1

## OBSOLESCENCE OF CIRCUIT EQUIPMENT-ALL CATEGORIES SURVIVORS REMAINING FROM 1987 INVESTMENT

<u>Technology Futures Inc.*</u>		<u>Percent Surviving From</u>	
<u>End Of</u>	<u>Percentage</u>	<u>FCC Carriers Reviewed In</u>	
<u>Year</u>	<u>Surviving</u>	<u>1996#</u>	<u>1997@</u>
1987	100		
1988	90		
1989	83		
1990	73		
1991	62		
1992	53		
1993	44		
1994	35		
1995	27	60.6	
1996	21		59.2

ARL (As of 1-1-89) = 5.3 Years

\* Technological Substitution in Circuit Equipment  
For Local Telecommunications  
Copyright 1989, Technology Futures, Inc.

# Includes NET, SNET, US West, GTE-South & GTE-SW

@ Includes Southwestern Bell, Cincinnati Bell & US West

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## Substitution Analysis 2

### Non-SONET Circuit Equipment Survivors

<u>Technology Futures Inc.*</u>		Percent Surviving From	
End	% Of 1994	Carriers Reviewed	
Of	Investment	<u>By FCC Staff In</u>	
<u>Year</u>	<u>Surviving</u>	<u>1996#</u>	<u>1997@</u>
1994	100		
1995	89	97.6	
1996	76		93.7

ARL (As of 1-1-95) = 3.7 Years

### Analog SPC Survivors

<u>Technology Futures Inc.*</u>		Percent Surviving From	
End	% Of 1994	Carriers Reviewed	
Of	Investment	<u>By FCC Staff In</u>	
<u>Year</u>	<u>Surviving</u>	<u>1996#</u>	<u>1997@</u>
1994	100.0		
1995	82.1	95.0	
1996	58.9		84.1

ARL (As of 1-1-95) = 2.8 Years

- \* Depreciation Lives for Telecommunications Equipment: Review & Update  
Copyright 1995, Technology Futures, Inc.

-# Includes NET, SNET, US West, GTE- South & GTE-SW

@ Includes Southwestern Bell, Cincinnati Bell & US West

## **LATEST FORECASTS**

- **DIGITAL SWITCHING**
- **COPPER CABLE AND WIRE FACILITIES**
- **SUBSTITUTION ANALYSIS INAPPROPRIATE**

## Comparison of TFI Forecasts

Component	TFI's 1995 Lives Update /1			TFI's July 1, 1999 Presentation			
	Percent of Investment (a)	TFI's Forecasted Remaining Life as of 1/1/95 (b)	Remaining Life Weight (c = a*b)	Percent of Investment (d)	TFI's Forecasted Remaining Life as of 1/1/97 (e)	Calculated Remaining Life Weight (f = d*e)	TFI's FCC Presentation Page 44
Processor Memory	29%	5.0	1.45	15%	3.7	0.56	0.52
Switching Fabric	5%	8.0	0.40	6%	8.0	0.48	0.52
Trunk Interface	12%	4.5	0.54	16%	4.1	0.66	0.65
DLC Line Interface	4%	6.3	0.25	8%	6.6	0.53	0.50
Baseline Interface	40%	6.3	2.55	47%	6.9	3.24	3.25
Shell	8%	13.3	1.06	8%	11.3	0.90	0.92
TFI Forecasted Remaining Life	98%		6.26	100%		6.37	6.36
TFI Recommended			6.3				6.3

/1 Depreciation Lives for Telecommunications Equipment, Review and Update, Exhibit 12, page 30.

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## VANSTON 1993 FORECAST

Wholesale retirements, evidenced by the avalanche curves in Exhibit 27.2 of my rebuttal testimony, in fact occur well after the introduction of the new technology. Usually the new technology will have to reach about 15% penetration before *wholesale* retirements become evident. Even then, retirements will not all occur in one or two years, but will spread out over time. Based on the forecasts presented in my rebuttal testimony, I expect fiber to reach this level of penetration in feeder cable by 1995 and in distribution cable by the year 2000.

Source: Vanston Surrebuttal, Illinois Bell Telephone Company, Docket No. 92-0448, Exhibit 27.10, P.4, November 1, 1993 (Emphasis added).

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**DIGITAL SWITCH RETIREMENT RATE  
ALL REPORTING LECs  
(\$ MILLIONS)**

<b>ACTIVITY YEAR</b>	<b>BEGINNING YEAR INVESTMENT BALANCE (a)</b>	<b>CURRENT YEAR RETIREMENTS (b)</b>	<b>RETIREMENT PERCENT (c = a/b )</b>
1990	\$23,557	\$377	1.60%
1991	27,522	532	1.93%
1992	31,258	487	1.56%
1993	35,430	1,016	2.87%
1994	39,117	1,152	2.95%
1995	42,406	1,134	2.67%
1996	45,272	1,572	3.47%
1997	48,997	1,623	3.31%
1998	53,026	1,689	3.19%
<b>Total 1990 - 1998</b>	<b>\$346,585</b>	<b>\$9,582</b>	<b>2.76%</b>

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## AVAILABILITY OF DSL

Ameritech	70% of homes by end of 2000
Bell Atlantic	17 million lines by end of 1999
Bell South	53 markets by end of 1999
GTE	Portions of 16 states in 1998
SBC	9.5 million lines by end of 1999
U S West	40 cities in 1999

Source: Bell Atlantic - Telecommunications Reports, August 2, 1999, p. 14.

All Others - Inquiry Concerning Deployment of Advanced Telecommunications....., CC Docket No. 98-146 Report, February 2, 1999, para. 42 and footnote 131.



**News center**  
for Customers in our Communities at U S WEST

**April 20, 1998**

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**U S WEST Announces Nation's First  
Fully Integrated Digital TV and On-line Service  
That Provides Cable TV Programming Over Existing Phone Lines**

*—Breakthrough VDSL Technology Offers Customers Superior Digital TV Picture and Sound  
Quality,*

*Packaged with "On -Screen" Telephone and Internet Services on Home TV Sets—*

PHOENIX — U S WEST Communications today announced availability of a new first-in-the-nation service offering customers integrated digital TV and high-speed Internet access over existing home phone lines. The service, to be called U S WEST TeleChoice®, utilizes Very-high-speed Digital Subscriber Line (VDSL) technology and gives customers an unprecedented range of entertainment, Internet and phone services, all combined on their home TV sets. The service debuts in Phoenix this summer and will expand to other U S WEST markets in 1999 and beyond.

"This is an exciting breakthrough," said Solomon D. Trujillo, president and CEO of U S WEST Communications. "At last, people will be able to marry the convenience of television and telephones with the power of the Internet. This new digital TV and on-line service will give customers a much sharper picture and CD quality sound. They'll even be able to see who's calling on the phone and scan the Internet, all as they're watching their favorite shows on TV."

U S WEST's digital TV and on-line service is unique because it integrates familiar cable programming with telephone features such as Caller ID. While watching TV, phone numbers for incoming callers can pop up on screen, letting viewers choose to continue watching or take the call. Later this year, viewers will be able to pull up Internet information that relates to whatever the viewer is watching.

In the announcement, Trujillo outlined the benefits of TeleChoice® digital TV and on-line service:

- Fully digital service, providing sharper pictures and CD quality sound to all TVs in the home;

- Access to more than 120 channels of entertainment and information cable programming - more than traditional cable TV - including basic, premium and pay-per-view;
- "Impulse pay-per-view" movies and events are also available, ordered through a remote control;
- "On-screen" integration with popular telephone features such as Caller ID and Voice Messaging;
- Advanced Internet services at higher speeds than traditional modems, packaged with video;
- Parental control features, enabling better content management for families with kids;
- A choice of multiple packages to meet a variety of customer needs, all competitively priced compared to standard cable offerings.

U S WEST is partnering with NextLevel Communications to provide the residential infrastructure and in-home gateway boxes that will be installed with the TeleChoice® digital TV and on-line service.

Trujillo said the new integrated digital TV and on-line technology is a breakthrough because it modifies and works with the existing telecommunications network rather than requiring construction of a whole new network. Previous deployments of such services by telecommunications companies required massive construction of all new fiber-optic networks that were both costly and time-prohibitive.

Trujillo said the future of TeleChoice® digital TV and on-line service would include new consumer choices not possible through older technologies available today. "We're stretching the boundaries by exploring innovative ways to integrate your telephone, TV and computer."

He cited examples such as surfing the World Wide Web while watching television, or receiving a message indicator on your television when one of your stock holdings changes in price. Viewers could also pull up on-screen statistics of their favorite player over the Internet while watching a sports game on TV, and even trade those stats with a friend watching the same game across town.

In a related announcement, U S WEST and the Phoenix Suns launched a partnership that will enable U S WEST to carry Suns games exclusively over the company's digital TV and on-line service beginning 2003. Suns fans will receive all 41 home games and home playoff games with their basic U S WEST video package.

U S WEST's new service will be available in a phased roll-out from wire centers serving some 400,000 customer lines in Phoenix by year-end 1998. The first customers to receive the service will be in the Gilbert area by the end of May. TeleChoice® will be available to other Phoenix areas starting in the summer, depending on franchise negotiations in specific communities.

The company will bring its new integrated digital TV and on-line service to the entire metropolitan Phoenix area as well as to other selected markets by the year 2000.

"Starting this summer, Phoenix will be connected like no other city in the country," said Trujillo. "And other markets will follow. We're at the forefront of an exciting era of advanced entertainment and communications technology. Customers are only beginning to see the possibilities."

In addition to providing cable programming over existing phone lines, U S WEST also has committed to deploying its high-speed ADSL MegaBit Services and U S WEST.net Internet access to customers in more than forty markets across its 14-state region by mid-1998. The company also has partnered with Williams Communications, Qwest, Cisco Systems and others to create a next-generation national data network. U S WEST currently offers cable services to customers in Omaha, Nebraska, and at the DC Ranch community in Scottsdale, Arizona.

U S WEST Communications (NYSE:USW) provides telecommunications services - including wireline, wireless PCS and data networking - to more than 25 million customers in 14 western and Midwestern states. The company is one of two major groups that make up U S WEST, a company in the connections business, helping customers share information, entertainment and communications services in local markets worldwide. U S WEST's other major group, MediaOne Group, is involved in domestic and international cable and telephone, wireless communications, and directory and information services. U S WEST has proposed splitting the two groups into separate companies sometime after mid-1998, pending shareowner approval.

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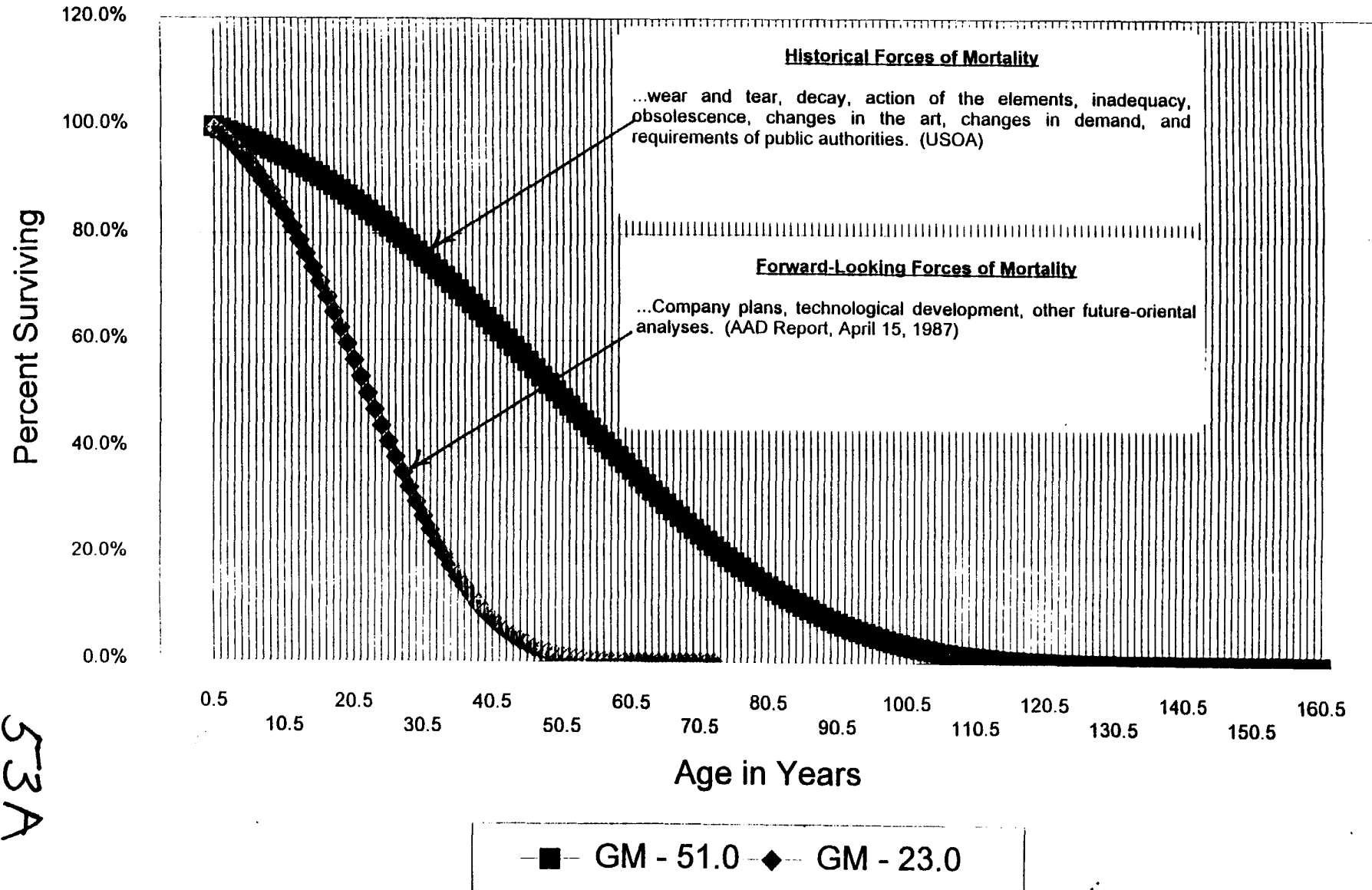
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## **FCC LIVES ARE APPROPRIATE FOR USE IN REGULATION**

- **LIFE INDICATIONS**
- **RETIREMENT VS. ACCURALS**
- **RESERVE GROWTH**
- **RESERVE SURPLUS**

# FCC FORWARD LOOKING CONSIDERATIONS

## Bell South Georgia - Metallic Underground Cable



## FCC LIVES ARE FORWARD-LOOKING

	<u>LIFE INDICATION</u>	<u>FCC PRESCRIBED</u>
DIGITAL SWITCH		
AL	32.0	16.5
LA	31.5	17.5
NC	42.1	15.5
SC	18.0	16.0
AERIAL METALLIC		
AL	32.7	20.0
LA	29.4	18.0
NC	33.3	18.0
SC	28.1	18.0
UNDERGROUND METALLIC		
AL	53.9	25.0
LA	47.6	25.0
NC	47.1	24.0
SC	48.5	24.0
BURIED METALLIC		
AL	33.8	23.0
LA	33.5	20.0
NC	26.2	18.0
SC	26.1	18.0



**All Reporting LECs' Plant Related Rates**  
(Dollars in Millions)

	Telecommunications Plant in Service				Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
	BOY (a)	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a									
1946		6,500						2,300					35.4
1947	6,500	7,400	6,950	900				2,500	2,400				33.8
1948	7,400	8,700	8,050	1,300				2,600	2,550				29.9
1949	8,700	9,800	9,250	1,100				2,800	2,700				28.6
1950	9,800	10,500	10,150	700				3,000	2,900				28.6
1951	10,500	11,300	10,900	800				3,200	3,100				28.3
1952	11,300	12,300	11,800	1,000				3,400	3,300				27.6
1953	12,300	13,400	12,850	1,100				3,600	3,500				26.9
1954	13,400	14,600	14,000	1,200				3,800	3,700				26.0
1955	14,600	15,800	15,200	1,200				4,100	3,950				25.9
1956	15,800	17,400	16,600	1,600				4,300	4,200				24.7
1957	17,400	19,600	18,500	2,200				4,600	4,450				23.5
1958	19,600	22,000	20,800	2,400				4,900	4,750				22.3
1959	22,000	23,000	22,500	1,000				5,200	5,050				22.6
1960	23,000	25,000	24,000	2,000	2,700	700	1,100	5,600	5,400	11.7	3.0	4.6	22.4
1961	25,000	27,000	26,000	2,000	2,800	800	1,200	6,000	5,800	11.2	3.2	4.6	22.2
1962	27,000	29,000	28,000	2,000	2,900	900	1,300	6,400	6,200	10.7	3.3	4.6	22.1
1963	29,000	32,000	30,500	3,000	4,000	1,000	1,400	6,800	6,600	13.8	3.4	4.6	21.3
1964	32,000	34,000	33,000	2,000	2,900	900	1,600	7,500	7,150	9.1	2.8	4.8	22.1
1965	34,000	37,000	35,500	3,000	4,100	1,100	1,700	8,100	7,800	12.1	3.2	4.8	21.9
1966	37,000	40,000	38,500	3,000	4,100	1,100	1,900	8,900	8,500	11.1	3.0	4.9	22.3
1967	40,000	44,000	42,000	4,000	5,100	1,100	2,100	9,900	9,400	12.8	2.8	5.0	22.5

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**All Reporting LECs' Plant Related Rates**  
(Dollars in Millions)

	Telecommunications Plant in Service				Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
	BOY (a)	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a									
1968	43,249	47,123	45,186	3,874	5,104	1,230	2,304	10,979	10,440	11.8	2.8	5.1	23.3
1969	47,175	51,724	49,450	4,549	6,022	1,473	2,507	12,072	11,526	12.8	3.1	5.1	23.3
1970	51,723	56,951	54,337	5,228	6,880	1,651	2,751	13,213	12,643	13.3	3.2	5.1	23.2
1971	56,972	63,090	60,031	6,118	8,052	1,933	3,016	14,447	13,830	14.1	3.4	5.0	22.9
1972	63,068	69,870	66,469	6,802	9,044	2,242	3,330	15,643	15,045	14.3	3.6	5.0	22.4
1973	69,951	77,442	73,697	7,491	10,085	2,595	3,659	16,769	16,206	14.4	3.7	5.0	21.7
1974	77,107	84,888	80,998	7,781	11,024	3,243	4,047	17,685	17,227	14.3	4.2	5.0	20.8
1975	84,799	92,284	88,542	7,485	10,881	3,396	4,486	18,809	18,247	12.8	4.0	5.1	20.4
1976	92,591	99,879	96,235	7,288	11,139	3,856	4,934	20,163	19,486	12.0	4.2	5.1	20.2
1977	101,237	109,496	105,367	8,259	12,438	4,136	5,630	21,903	21,033	12.3	4.1	5.3	20.0
1978	109,502	119,336	114,419	9,834	14,549	4,681	6,199	23,474	22,689	13.3	4.3	5.4	19.7
1979	118,612	129,972	124,292	11,360	16,843	5,452	6,820	24,881	24,178	14.2	4.6	5.5	19.1
1980	129,767	142,096	135,932	12,329	18,694	6,378	7,804	26,512	25,697	14.4	4.9	5.7	18.7
1981	142,121	155,845	148,983	13,724	19,482	5,749	8,664	29,932	28,222	13.7	4.0	5.8	19.2
1982	155,907	168,075	161,991	12,168	18,466	6,409	9,757	33,957	31,945	11.8	4.1	6.0	20.2
1983	169,162	178,482	173,822	9,320	16,076	6,664	11,340	39,571	36,764	9.5	3.9	6.5	22.2
1984	152,315	159,798	156,057	7,483	14,994	4,994	10,048	37,996	38,784	9.8	3.3	6.4	23.8
1985	174,218	186,294	180,256	12,076	18,972	6,687	11,469	43,837	40,917	10.9	3.8	6.9	25.7
1986	186,972	198,758	192,865	11,786	18,907	6,954	13,142	51,543	47,690	10.1	3.7	7.5	28.4
1987	199,063	209,687	204,375	10,624	18,535	7,886	15,263	61,471	56,507	9.3	4.0	8.1	31.6
1988	210,720	220,395	215,558	9,675	17,947	8,949	16,627	74,123	67,797	8.5	4.2	7.7	33.8

**All Reporting LECs' Plant Related Rates**  
(Dollars in Millions)

	<u>Telecommunications Plant in Service</u>				<u>Add</u>	<u>Ret</u>	<u>Deprec</u>	<u>EOY Reserve</u>	<u>AVG Reserve</u>	<u>Add Rate</u> (j) = e/a	<u>Retire Rate</u> (k) = f/a	<u>Deprec Rate</u> (l) = g/c	<u>Reserve Percent</u> (m) = h/b
	<u>BOY</u> (a)	<u>EOY</u> (b)	<u>Average</u> (c)=(a+b)/2	<u>Increase</u> (d) = b-a									
1989	220,126	229,326	224,726	9,200	16,868	8,145	16,839	83,115	78,619	7.7	3.7	7.5	36.2
1990	229,103	235,247	232,175	6,144	18,473	12,380	16,955	88,146	85,631	8.1	5.4	7.3	37.5
1991	236,093	241,620	238,857	5,527	18,322	12,896	16,607	91,427	89,787	7.8	5.5	7.0	37.8
1992	242,599	249,508	246,054	6,909	18,877	12,138	17,036	98,053	94,740	7.8	5.0	6.9	39.3
1993	250,570	258,782	254,676	8,212	18,864	11,217	17,676	106,079	102,066	7.5	4.5	6.9	41.0
1994	259,216	267,443	263,330	8,227	18,781	10,990	18,656	114,598	110,339	7.2	4.2	7.1	42.8
1995	268,555	278,946	273,751	10,391	19,482	9,411	19,393	125,789	120,194	7.3	3.5	7.1	45.1
1996	278,974	291,569	285,272	12,595	22,401	10,271	20,527	137,278	131,534	8.0	3.7	7.2	47.1
1997	291,569	303,809	297,689	12,240	23,171	11,627	21,156	148,163	142,721	7.9	4.0	7.1	48.8
1998	303,689	319,767	311,728	16,078	24,218	9,337	21,947	162,102	155,133	8.0	3.1	7.0	50.7
Avg.	'80-'83									12.6	3.6	5.2	
	'84-'98									8.4	4.1	7.2	

Source: 1946 - 1967 Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, FCC, April 15, 1987, pp.6, 9  
 1968 - 1983 FCC Statistics of Common Carriers, Tables 12 and 16  
 1984 - 1987 FCC Statistics of Common Carriers, Tables 10 and 14  
 1988 - 1998 FCC Statistics of Common Carriers, Tables 2.7 and 2.9

Note 1: 1946 - 1983 Includes AT&T

Note 2: Cols l and m for 1985-1987 from Table 14 data as follows:

Col l = 1985 Col g/165,076

1986 Col g/175,926

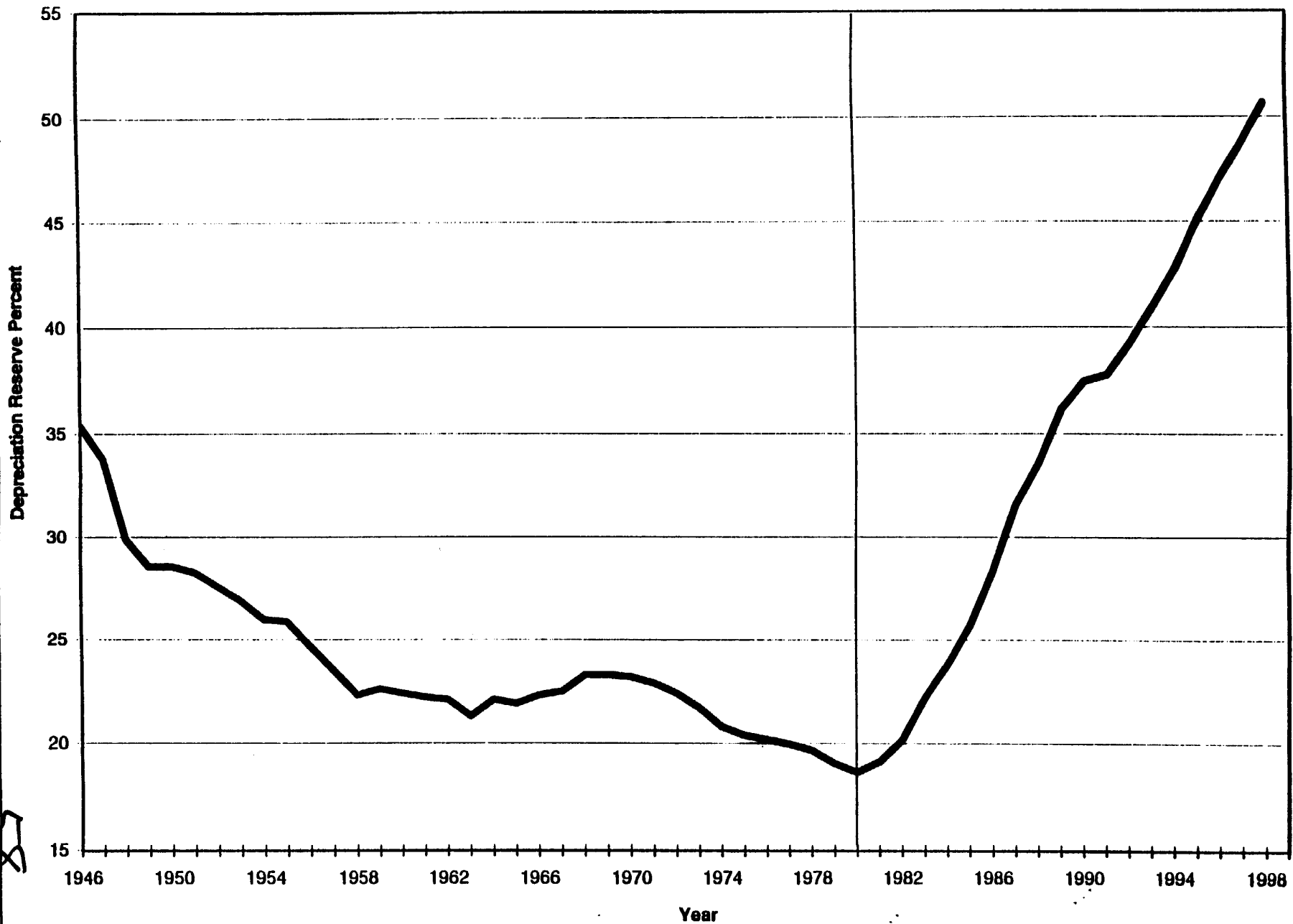
1987 Col g/187,920

Col m = 1985 Col h/170,355

1986 Col h/181,496

1987 Col h/194,343

# Depreciation Reserve Percent All Reporting LECs



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# Summary of Reserves On FCC Basis

(Dollars in Thousands)

Company	State	1/1/99 Investment a	Book Reserve b	Percent c = b / a	Theoretical Reserve d	Percent e = d / a	Surplus f = b - d	Percent g = f / a
Ameritech	Illinois	9,816,408	4,849,080	49.4%	4,459,709	45.4%	389,371	4.0%
	Indiana	3,386,192	1,833,945	54.2%	1,673,365	49.4%	160,580	4.7%
	Michigan	8,595,929	4,792,937	55.8%	4,489,108	52.2%	303,828	3.5%
	Ohio	6,510,577	3,417,494	52.5%	3,215,099	49.4%	202,395	3.1%
	Wisconsin	<u>2,941,434</u>	<u>1,448,457</u>	<u>49.2%</u>	<u>1,363,284</u>	<u>46.3%</u>	<u>85,173</u>	<u>2.9%</u>
	Total	31,250,540	16,341,912	52.3%	15,200,565	48.6%	1,141,348	3.7%
Bell Atlantic	Delaware	870,610	406,647	46.7%	397,967	45.7%	8,680	1.0%
	Maine	1,460,303	819,264	56.1%	757,094	51.8%	62,171	4.3%
	Maryland	6,016,041	2,958,068	49.2%	2,861,159	47.6%	96,908	1.6%
	Massachusetts	8,634,368	4,428,769	51.3%	4,260,538	49.3%	168,231	1.9%
	New Hampshire	1,659,000	899,930	54.2%	842,885	50.8%	57,045	3.4%
	New Jersey	9,956,169	4,948,791	49.7%	4,766,387	47.9%	182,405	1.8%
	New York	21,133,337	10,856,846	51.4%	11,327,504	53.6%	-470,658	-2.2%
	Pennsylvania	10,142,878	5,061,929	49.9%	4,977,656	49.1%	84,272	0.8%
	Rhode Island	1,009,179	552,421	54.7%	550,404	54.5%	2,017	0.2%
	Vermont	835,596	485,006	58.0%	460,072	55.1%	24,934	3.0%
	Virginia	6,214,375	2,947,787	47.4%	2,699,731	43.4%	248,056	4.0%
	Washington, D	1,719,125	761,739	44.3%	787,875	45.8%	-26,136	-1.5%
	West Virginia	<u>1,811,363</u>	<u>1,004,389</u>	<u>55.4%</u>	<u>949,370</u>	<u>52.4%</u>	<u>55,019</u>	<u>3.0%</u>
	Total	71,462,345	36,131,586	50.6%	35,638,641	49.9%	492,944	0.7%
BellSouth	Alabama	4,625,552	2,485,851	53.7%	2,212,815	47.8%	273,036	5.9%
	Florida	11,742,280	6,432,472	54.8%	5,818,640	49.6%	613,832	5.2%
	Georgia	8,959,750	4,636,161	51.7%	4,219,699	47.1%	416,462	4.6%
	Kentucky	2,555,317	1,356,197	53.1%	1,186,225	46.4%	169,972	6.7%
	Louisiana	4,654,122	2,787,650	59.9%	2,433,857	52.3%	353,793	7.6%
	Mississippi	3,051,100	1,734,491	56.8%	1,517,827	49.7%	216,665	7.1%
	North Carolina	5,059,583	2,613,145	51.6%	2,422,643	47.9%	190,502	3.8%
	South Carolina	3,063,929	1,654,156	54.0%	1,554,295	50.7%	99,861	3.3%
	Tennessee	<u>5,085,398</u>	<u>2,546,762</u>	<u>50.1%</u>	<u>2,340,947</u>	<u>46.0%</u>	<u>205,815</u>	<u>4.0%</u>
	Total	48,797,032	26,246,886	53.8%	23,706,947	48.6%	2,539,938	5.2%

# Summary of Reserves On FCC Basis

(Dollars in Thousands)

Company	State	1/1/99 Investment a	Book Reserve b	Percent c = b / a	Theoretical Reserve d	Percent e = d / a	Surplus f = b - d	Percent g = f / a
SBC	Arkansas	2,041,133	1,025,815	50.3%	1,001,847	49.1%	23,968	1.2%
	California	28,015,164	13,965,032	49.8%	13,173,054	47.0%	791,977	2.8%
	Kansas	2,406,396	1,191,198	49.5%	1,193,513	49.6%	-2,316	-0.1%
	Missouri	5,262,220	2,409,597	45.8%	2,559,761	48.6%	-150,164	-2.9%
	Nevada	598,989	291,250	48.6%	253,599	42.3%	37,651	6.3%
	Oklahoma	3,009,429	1,620,565	53.8%	1,570,319	52.2%	50,246	1.7%
	Texas	<u>18,928,142</u>	<u>9,282,855</u>	<u>49.0%</u>	<u>9,232,707</u>	<u>48.8%</u>	<u>50,148</u>	<u>0.3%</u>
	Total	60,261,474	29,786,311	49.4%	28,984,802	48.1%	801,509	1.3%
US West	Arizona	4,618,240	2,328,645	50.4%	2,250,599	48.7%	78,046	1.7%
	Colorado	6,021,274	2,833,167	47.1%	2,759,353	45.8%	73,814	1.2%
	Idaho	949,524	496,823	52.3%	467,271	49.2%	29,552	3.1%
	Iowa	1,894,681	1,122,842	59.3%	1,051,771	55.5%	71,071	3.8%
	Minnesota	3,848,433	2,044,445	53.1%	1,901,550	49.4%	142,894	3.7%
	Montana	764,426	378,169	49.5%	381,892	50.0%	-3,723	-0.5%
	Nebraska	1,374,770	775,967	56.4%	724,599	52.7%	51,368	3.7%
	New Mexico	1,758,464	903,678	51.4%	938,750	53.4%	-35,073	-2.0%
	North Dakota	480,843	291,587	60.6%	258,372	53.7%	33,215	6.9%
	Oregon	2,480,288	1,191,743	48.0%	1,189,989	48.0%	1,755	0.1%
	South Dakota	592,298	352,837	59.6%	313,910	53.0%	38,927	6.6%
	Utah	2,198,746	1,000,745	45.5%	1,024,549	46.6%	-23,804	-1.1%
	Washington	4,749,154	2,508,308	52.8%	2,458,756	51.8%	49,553	1.0%
	Wyoming	<u>729,213</u>	<u>386,734</u>	<u>53.0%</u>	<u>379,930</u>	<u>52.1%</u>	<u>6,804</u>	<u>0.9%</u>
	Total	32,460,356	16,615,689	51.2%	16,101,290	49.6%	514,399	1.6%
RBOCs	Total	244,231,747	125,122,384	51.2%	119,632,245	49.0%	5,490,139	2.2%

# Summary of Reserves On FCC Basis

(Dollars in Thousands)

Company	State	1/1/99 Investment a	Book Reserve b	Percent c = b / a	Theoretical Reserve d	Percent e = d / a	Surplus f = b - d	Percent g = f / a
Cincinnati Bell	Kentucky	325,980	157,287	48.3%	164,445	50.4%	-7,158	-2.2%
	Ohio	<u>1,324,714</u>	<u>678,909</u>	<u>51.2%</u>	<u>697,445</u>	<u>52.6%</u>	<u>-18,537</u>	<u>-1.4%</u>
	Total	1,650,694	836,196	50.7%	861,890	52.2%	-25,694	-1.6%
SNET	Connecticut	<u>4,390,554</u>	<u>2,276,077</u>	<u>51.8%</u>	<u>2,244,992</u>	<u>51.1%</u>	<u>31,085</u>	<u>0.7%</u>
	Total	4,390,554	2,276,077	51.8%	2,244,992	51.1%	31,085	0.7%
United Tel - Southeast	Tennessee	447,286	229,469	51.3%	237,882	53.2%	-8,413	-1.9%
	Virginia	211,412	110,735	52.4%	110,573	52.3%	161	0.1%
	West Virginia	292	116	<u>39.8%</u>	<u>107</u>	<u>36.6%</u>	<u>9</u>	<u>3.2%</u>
	Total	658,990	340,320	51.6%	348,562	52.9%	-8,242	-1.3%
GTE - North	Illinois	1,822,451	934,929	51.3%	796,430	43.7%	138,499	7.6%
	Indiana	2,042,487	1,021,959	50.0%	807,074	39.5%	214,886	10.5%
	Michigan	1,577,753	771,801	48.9%	663,266	42.0%	108,535	6.9%
	Ohio	1,723,555	865,780	50.2%	721,395	41.9%	144,384	8.4%
	Pennsylvania	1,244,551	634,340	51.0%	503,041	40.4%	131,299	10.5%
	Wisconsin	<u>1,154,504</u>	<u>618,308</u>	<u>53.6%</u>	<u>495,633</u>	<u>42.9%</u>	<u>122,675</u>	<u>10.6%</u>
	Total	9,565,301	4,847,117	50.7%	3,986,840	41.7%	860,277	9.0%
GTE - Florida	Florida	<u>4,479,322</u>	<u>2,075,650</u>	<u>46.3%</u>	<u>1,811,379</u>	<u>40.4%</u>	<u>264,271</u>	<u>5.9%</u>
	Total	4,479,322	2,075,650	46.3%	1,811,379	40.4%	264,271	5.9%
GTE - South	Alabama	643,081	320,123	49.8%	286,233	44.5%	33,890	5.3%
	Kentucky	1,298,158	649,840	50.1%	541,793	41.7%	108,048	8.3%
	North Carolina	903,622	436,305	48.3%	398,217	44.1%	38,088	4.2%
	South Carolina	<u>446,149</u>	<u>232,818</u>	<u>52.2%</u>	<u>208,193</u>	<u>46.7%</u>	<u>24,625</u>	<u>5.5%</u>
	Total	3,291,010	1,639,086	49.8%	1,434,436	43.6%	204,650	6.2%
GTE - Midwest	Iowa	630,116	288,716	45.8%	238,799	37.9%	49,917	7.9%
	Missouri	1,233,434	511,158	41.4%	456,045	37.0%	55,113	4.5%
	Nebraska	<u>119,825</u>	<u>58,067</u>	<u>48.5%</u>	<u>46,777</u>	<u>39.0%</u>	<u>11,289</u>	<u>9.4%</u>
	Total	1,983,375	857,941	43.3%	741,621	37.4%	116,320	5.9%

# Summary of Reserves On FCC Basis

(Dollars in Thousands)

Company	State	1/1/99 Investment a	Book Reserve b	Percent c = b / a	Theoretical Reserve d	Percent e = d / a	Surplus f = b - d	Percent g = f / a
GTE - Southwest	Arkansas	250,744	118,963	47.4%	111,641	44.5%	7,322	2.9%
	New Mexico	225,007	137,033	60.9%	116,781	51.9%	20,252	9.0%
	Oklahoma	284,229	131,727	46.3%	126,734	44.6%	4,993	1.8%
	Texas	<u>4,799,070</u>	<u>2,325,473</u>	<u>48.5%</u>	<u>2,123,609</u>	<u>44.3%</u>	<u>201,863</u>	<u>4.2%</u>
	Total	5,559,051	2,713,196	48.8%	2,478,765	44.6%	234,430	4.2%
GTE - Northwest	Idaho	368,889	161,432	43.8%	123,220	33.4%	38,212	10.4%
	Oregon	941,737	409,902	43.5%	320,805	34.1%	89,097	9.5%
	Washington	<u>2,090,308</u>	<u>895,658</u>	<u>42.8%</u>	<u>712,358</u>	<u>34.1%</u>	<u>183,300</u>	<u>8.8%</u>
	Total	3,400,934	1,466,993	43.1%	1,156,383	34.0%	310,609	9.1%
GTE - Hawaii	Hawaii	<u>1,794,864</u>	<u>768,160</u>	<u>42.8%</u>	<u>682,718</u>	<u>38.0%</u>	<u>85,442</u>	<u>4.8%</u>
	Total	1,794,864	768,160	42.8%	682,718	38.0%	85,442	4.8%
Contel of CA	California	<u>926,360</u>	<u>500,350</u>	<u>54.0%</u>	<u>440,959</u>	<u>47.6%</u>	<u>59,391</u>	<u>6.4%</u>
	Total	926,360	500,350	54.0%	440,959	47.6%	59,391	6.4%
GTE/Contel of VA	Virgina	<u>1,190,471</u>	<u>533,306</u>	<u>44.8%</u>	<u>493,680</u>	<u>41.5%</u>	<u>39,626</u>	<u>3.3%</u>
	Total	1,190,471	533,306	44.8%	493,680	41.5%	39,626	3.3%
GTE	Total	32,190,688	15,401,799	47.8%	13,226,782	41.1%	2,175,017	6.8%
All LECs	Total	283,122,673	143,976,776	50.9%	136,314,472	48.1%	7,662,304	2.7%

Source: Carrier submissions pursuant to Section C-1 of Depreciation Study Guide



# **ECONOMIC DEPRECIATION**

- **COPPER UTILIZATION**
- **REPLACEMENT COST VS. NET BOOK**
- **MARKET TO BOOK RATIOS**
- **SALE OF LECS**
- **NARUC SUMMARY**

## Copper Utilization – All LECs

	<b>Equipped Channels (millions)</b>	<b>Working Channels (millions)</b>	<b>Percent</b>
<b>1991</b>	207.4	131.2	63
<b>1992</b>	217.2	132.5	61
<b>1993</b>	221.9	133.0	60
<b>1994</b>	222.4	136.1	61
<b>1995</b>	227.0	141.5	62
<b>1996</b>	227.4	144.6	64
<b>1997</b>	230.9	147.3	64
<b>1998</b>	236.5	151.6	64

Source: Infrastructure of the Local Operating Companies, Industry Analysis Division,  
July 1999, p. 16.

## LOOP REPLACEMENT COST EXCEEDS NET PLANT

### LOCAL LOOP (\$000)

STATE	REPLACEMENT COST a	NET PLANT b	REPLACEMENT -NET PLANT c = a - b
DC	236,536	66,368	170,172
OK	838,848	549,574	289,274
RI	230,255	162,378	67,878
VA	1,399,494	1,114,837	284,657

Source: COL a = HATFIELD MODEL  
COL b = ARMIS 43-04

**Market-to-Book Ratios**

<b><u>ILEC</u></b>	<b><u>Book Equity (\$ Mil)</u></b> a	<b><u>Write- Down (\$ Mil)</u></b> b	<b><u>Adjusted Book (\$ Mil)</u></b> c = a + b	<b><u>Shares (Mil)</u></b> d	<b><u>Book Per Share</u></b> e = c / d	<b><u>Market Per Share</u></b> f	<b><u>M / B Ratio</u></b> g = f / e
1. Ameritech	\$10,792	\$2,415	\$13,207	1,101	\$11.995	\$55.625	4.64
2. Bell Atlantic	12,604	4,659	17,263	1,553	11.116	56.563	5.09
3. BellSouth	15,899	3,231	19,130	988	19.363	87.813	4.54
4. SBC	11,531	6,254	17,785	1,837	9.682	48.688	5.03
5. U S West	625	3,564	4,189	502	8.345	63.188	7.57
6. GTE	8,208	4,884	13,092	962	13.609	61.813	4.54

Source: 9/30/98 Financial Reports  
11/30/98 Market Prices

**ILEC Acquisitions**

(\$ Billions)

	<u>Buyer</u>	<u>Bought</u>	<u>Price</u> a	<u>Book</u> <u>Equity</u> b	<u>Write-</u> <u>Down</u> c	<u>Adjusted</u> <u>Book</u> d = b + c	<u>Premium</u> e = a - d
1.	BA	Nynex	\$23.5	\$7.6	\$2.4	\$10.0	\$13.5
2.	SBC	Pacific	15.7	2.4	3.2	5.6	10.1
3.	SBC	SNET	4.4	0.5	0.5	1.0	3.4
4.	SBC	Ameritech	61.3	8.3	2.4	10.7	50.6
5.	BA	GTE	52.9	7.6	4.9	12.5	40.4

Note: L4 and L5 acquisitions pending

## **ECONOMIC vs. ACCOUNTING VALUES**

Although the economic and accounting values for LECs' assets may be different, current financial information indicates the economic values of the LECs' assets are above the accounting values, not below.

Source: National Association of Regulatory Commissioners ("NARUC") Staff Subcommittee on Depreciation, Journal of the Society of Depreciation Professionals, Volume 8, Number 1, 1998, p. 75.

## **CONCLUSION**

**FCC LIVES SHOULD BE  
USED FOR REGULATORY  
PURPOSES**